BIASED CARD DEAL

FIELD OF THE INVENTION

[0001] The present invention relates to a method of controlling the deal of cards, or other indicia, to players of a card game.

BACKGROUND OF THE INVENTION

[0002] When playing a game of cards, the cards must be dealt to each of the players. The most common method of dealing cards for a game requires shuffling the cards and subsequently dealing the cards to each of the players in the game. Cards are shuffled prior to dealing the cards ensuring a random distribution of the cards through out the deck of cards and to the players. For example, in standard five-card stud poker utilizing a random deal, the cards are shuffled to insure a random distribution of the cards through out the deck. Once the cards have been thoroughly shuffled, the cards are then dealt to each player in the game.

[0003] When all players have been dealt the proper number of cards for the card game that they are playing, the hand rank of each player is determined by the probability of cards occurring in his hand. For example, the probability of the first card dealt to a player from a fifty-two card deck being the Ace of Spades is 1 in 52. The probability of the next card being the Ace of Diamonds is 1 in 51. The probability of the third card dealt being the Ace of Heart is 1 in 50, etc. Randomly dealing cards makes it extremely difficult for multiple players to have hands that are competitively ranked within the same game. Typically, most players in the game are dealt hands that have low rankings which causes them to fold their hands prior to the end of the game or they will lose the game.

[0004] Randomly dealing cards results in a less exciting and a less

competitive card game, such as poker, where each of the players have varying hand ranks associated with their cards. One player may have an exceptional hand while the remaining players have hands that are not very highly ranked. As a result, the winner of the game is determined by the deal of the cards and the other players have no chance in winning. A method of biasing or controlling the deal of the cards is needed to increase the excitement and competition of the game. By utilizing a biased or controlled deal in a game allows for all players of the game to have relatively close hand rankings within the game. Therefore, the excitement of the game will be increased as the players know that all hands are relatively close in rank to each other, but do not know if they have the best hand or only a good hand.

SUMMARY OF THE INVENTION

[0005] It is an object of the present invention to provide a method of biasing or controlling the deal of cards, or other indicia, utilized in a game such as poker.

[0006] It is another object of the present invention to utilize statistical sampling of all possible hands or combinations in determining the hand of each player of the game.

[0007] It is yet another object of the present invention to provide for a more exciting game by keeping the hand rankings of all the players in the game close together.

[0008] In the present invention, a method is provided for biasing or controlling the deal of cards, or other indicia, to players of a game. The cards are biased such that each player in the game will receive a hand that is close in ranking to all the other players of the game. Each player of the game is assigned a deviation multiplier selected from a list. Next an initial single hand rank is randomly selected and each player's deviation number is used to identify a range of hand rankings from which each player's hand is selected. If the initial hand ranking is 50

and the average deviation for a player is 2, the player's hand ranking will be in the range of 50±(10 x deviation multiplier) or 50±(20) which is 30-70. (i.e. 50±20 or 50-20=30 and 50+20=70). Biasing the deal of the cards increases the excitement and competition of the game by allowing all players of the game to have relatively close hand rankings.

[0009] The foregoing, together with other features and advantages of the present invention, will become more apparent when referring to the following specification, claims and accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] The present invention will be better understood from the following detailed description of an exemplary embodiment of the invention, taken in conjunction with the accompanying drawings in which like reference numerals refer to like parts and in which:

Figure 1a illustrates the hand rankings of a high card;

Figure 1b illustrates the hand rankings of a pair;

Figure 1c illustrates the hand rankings of two pair;

Figure 1d illustrates the hand rankings of three of a kind;

Figure 1e illustrates the hand rankings of a straight;

Figure 1f illustrates the hand rankings of a flush;

Figure 1g illustrates the hand rankings of a full house;

Figure 1h illustrates the hand rankings of four of a kind;

Figure 1i illustrates the hand rankings of a straight flush;

Figure 2 is a flow chart illustrating the method of biasing or controlling the deal of cards in accordance with the present invention;

Figure 3 illustrates a list of deviation multipliers;

Figure 4a illustrates an example of a game of five card stud played with four players;

Figure 4b illustrates the hand rank selected for each of the four players fo the

game in Figure 4a;

Figure 5a illustrates an example of a game of five card stud played with six players; and

Figure 5b illustrates the hand rank selected for each of the six players of the game in Figure 5a.

DETAILED DESCRIPTION OF THE DRAWINGS

[0011] The present invention is a method of biasing or controlling how cards are dealt from a standard deck or decks of cards by utilizing a set of rules that can be implemented in numerous physical or electronic forms, in numerous settings and in numerous variations. The following detailed description illustrates a preferred embodiment of the present invention. In the preferred embodiment, the method of biasing or controlling how the cards are dealt utilizes a variety of electronic video poker games which are designed to display the hand of each player on a video screen. Typically, buttons located on the video games are utilized by players to select cards to play, select cards which are to be moved from one location to another and which cards to discard. In an alternative embodiment, the screen can be conventional touch screen technology. The biased card deal of the present invention is implemented as part of a five card stud poker game utilizing a video game in the preferred embodiment. Those skilled in the art will recognize that the principles and teachings described herein may be applied to a variety of other card games, with or without the use of a video game.

[0012] In a card game, such as five card stud, there exists a finite number of hands that may be dealt to a player using a standard deck of cards. Each of these hands is assigned a hand rank which is well known within the gaming industry. These hand rankings, illustrated in Figures 1a-i, are used to determine the winner of the game. As can be seen in Figures 1a-i, the hands are identified by the value or rank of each hand and the cards in each hand. Hands are ranked between 1 and 100 with 100 being the best hand and 1 being the worst hand. Additionally,

the hand rankings are broken up in to the various poker hands that players may be dealt. These pokers hands, from highest to lowest, are: straight flush, four of a kind, full house, flush, straight, three of a kind, 2 pair, pair and high card. Within each poker hand, there are several variations that a player may be dealt. For example, once all the cards are dealt, and the player has a pair, the player can have a pair of 2s, a pair of 3s, a pair of 4s, etc. As discussed previously, each possible hand that may be dealt to a player is assigned a hand rank. As illustrated in Figure 1b, a pair of 2s has a hand rank of 9 while a pair of 10s has a hand rank of 17. Figure 1a illustrates the hand rankings of all the possibilities of a high card, Figure 1c illustrates the hand rankings of all the possibilities of a 2 pair, Figure 1d illustrates the hand rankings of all the possibilities of a three of a kind, Figure 1e illustrates the hand rankings of all the possibilities of a straight, Figure 1f illustrates the hand rankings of all the possibilities a flush, Figure 1g illustrates the hand rankings of all the possibilities of a full house, Figure 1h illustrates the hand rankings of all the possibilities of a four of a kind and Figure 1i illustrates the hand rankings of all the possibilities of a straight flush.

[0013] Turning to Figure 2, a flow chart illustrating the method of biasing or controlling the deal of cards of the present invention is shown. In this method, a deviation multiplier is randomly selected for a first player in a card game from a list of deviation multipliers at step 200. A deviation multiplier is a number which is utilized to identify a range of hand ranks from which a hand ranking will be selected for each player of the game. Next, a deviation multiplier is randomly selected for a second player in the card game at step 202. A check is then made to determine if all the players in the game have been assigned a deviation multiplier at step 204. If the answer is FALSE 206, the process in step 202 is repeated until all players have received a deviation multiplier. If the answer is TRUE 208, a random number is selected between 0 and the total number of possible hand rankings for the game, i.e. 0 and 100, as shown in step 210. The random number that is selected represents an initial single hand rank which is used to determine the individual hand for each player. An example of a list of deviation multipliers is illustrated in Figure

3. This list is by way of example only and different deviation multipliers may be chosen for each group of players. As shown in Figure 3, if there are two players in the game, the deviation multipliers will be a one and a two, if there are four players in the game, the deviations multipliers will be one, one, two and four. The deviation multipliers are randomly assigned to each of the players in the game.

[0014] As described previously, once the initial single hand rank has been selected, the first player's hand is then determined using the initial single hand rank. Each player's hand will be within a range of ±(10 x deviation multiplier) of the initial single hand rank. In other words, if the initial hand rank is 50 and the deviation multiplier is 1, the range of possible hand ranking for the player is ±(10 x 1) =±10 of the initial single hand rank. Therefore, the range is 50±10 or a range of 40 to 60. The hand is selected by using a formula defined by the method in the preferred embodiment. The following formula is utilized:

(10 x player's deviation multiplier) x 2

Although this formula is illustrated, additional formulas may be utilized in this method, such as multiplying by 3 and not 2. Using this formula (10 x deviation multiplier) x 2, a random number is selected and the random number chosen is added to the initial single hand rank to establish a base number. Then the player's deviation multiplier is multiplied by 10 and this value is subtracted from the base number 212. For example, in step 210 the number 50 is randomly selected which represents the initial single hand rank and the deviation multiplier assigned to a player is 2. Next, as indicated in step 212, a random number from 0 to (10 x player's deviation multiplier)x2 (i.e. 0 to (10x2)x2 or 0 to 40) is selected. If the number 5 is randomly selected, the number 5 is added to the initial hand rank (50+5=55) so that 55 becomes the base number. Then (10 x player's deviation multiplier) is subtracted from the base number or 55 (i.e., 10 x 2 = 20). In other words, 20 (i.e., 10x2) is subtracted from 55 for a value of 35 which represents the hand rank of the first player. 35 is a hand of 3 of a kind 3 high.

[0015] Next in step 214, another player's hand is selected using the process described in step 212 above. A check is made to determine if all the players in the game have been assigned a hand 216. If the answer is FALSE 218, the process in step 214 is repeated until all players have been assigned a hand. If the answer is TRUE 220, the player's cards are assigned based off of each player's hand ranking 222.

[0016] In the preferred embodiment, once the hand rankings have been assigned to each player, each player is dealt his hand according to his pre-determined hand rank. In a poker game, such as 5 card poker, each player is dealt five cards with all but one of the cards facing downwards. Each player knows that the other players have a hand that is likely to be close in hand rank to his, making the game more interesting. After viewing his first card and the first card of the other players, each player now has the option of placing a bet on his hand or folding utilizing buttons on a video game or a touch screen display. After all players have either placed a bet or folded, the second card is turned over so each player knows what two of his cards are. Once again each player has the option of placing a bet or folding. This process is repeated until all cards are overturned. The player with the highest hand rank wins the game. Five card poker is described by way of example only. Numerous other card games may be played with this method. In an alternative embodiments, poker games which allow each player to choose to discard and replace cards in his hand or community cards can be shared among players.

[0017] Figure 4a illustrates a first example of a game of five card stud with four players. Each player in the game is assigned a deviation multiplier based upon the rules of the game described with reference to Figure 2. In this example, each player is assigned a deviation multiplier based upon the list of deviation multipliers in Figure 3. Since four players are playing the poker game, the deviation multipliers randomly assigned to each of the four players are 1, 1, 2, 3. As Figure 4a illustrates, player one was assigned a deviation multiplier of one, player two was

assigned a deviation multiplier of two, player three was assigned a deviation multiplier of one and player four was assigned a deviation multiplier of three. Once a deviation multiplier has been assigned to each player, an initial hand rank is randomly selected. In this case, hand ranking 39 (3 of kind with 7) high was selected as the initial hand ranking.

[0018] Next, the initial hand ranking and the average deviation for each player are used to determine, as discussed with reference to Figure 2, the hand ranking of each of the players. Player one has a deviation multiplier of one, so player one's hand rank is selected within the range of ± 10 of the initial hand ranking, or 29 to 49 (2 pair 10 high to straight 7 high). Using the formula discussed above, a hand ranking of 30 (2 pair jack high) is selected for player one. Player two has a deviation multiplier of two, so player two's hand rank is selected as within the range of ± 20 of the hand ranking, or 19 to 59 (pair of queens to flush 9 high). Using the formula above, a hand ranking of 43 (3 of a kind jack high) is selected for player two. Player three has a deviation multiplier of one, so player three's hand rank is selected as within the range of ± 10 of the hand ranking, or 29 to 49 (2 pair 10 high to straight 7 high). Using the formula discussed above, a hand ranking of 33 (2 pair ace high) is selected for player three. Player four has a deviation multiplier of three, so player four's hand rank is selected as within the range of ± 30 of the hand ranking, or 9 to 69 (pair 2s to full house 6 high). Using the formula discussed above, a hand ranking of 57 (flush 7 high) is selected for player four.

[0019] Therefore, as shown in Figure 4b, player one's hand rank is 31 (2 pair queen high), player two's hand rank is 43 (3 of a kind jack high), player three's hand rank is 33 (2 pair ace high) and player four's hand rank is 57 (flush 7 high). As a result of this method, each of the four players has the possibility of having a hand rank that is close to the other players. None of the players know what the hand rank is of each of the other players, but knows that it is more likely to be a comparable hand rank than without a biased deal. Thus, a more exciting game has been created, assuming all players in the game do not fold. Player four would win

this game. However, those skilled in the art of poker know the hand rankings are close, much closer than one would expect to see with a standard method of dealing. All the players in the game may be dealt their cards from a single deck of cards or each player may have his own, separate deck of cards. If separate decks of cards are used and two or more players end up with the same hand, the winner is determined by the suit of the cards. Prior to the beginning of the games, rules are established as to the rankings of the suits, such as hearts takes precedence of spades which takes precedence over diamonds which takes precedence over clubs. For example, if two players have the same straight flush with the exception of different suits, the highest ranking suit would win. If the first player had a straight flush in the suit hearts and the second player had a straight flush in the diamonds, the first player would win based upon the pre-established rules that hearts are ranked higher than diamonds.

[0020] Figure 5a illustrates a second example of a card game (five card stud) with six players. Each player in the game is assigned a deviation multiplier based upon the rules of the game. In this example, each player is assigned a deviation multiplier based upon the table in Figure 2. Since six players are playing the poker game, the average deviations will be 1, 1, 2, 2, 2, 3. These average deviations are randomly assigned to each of the six players. As Figure 5a illustrates, player one was assigned a deviation multiplier of two, player two was assigned a deviation multiplier of one, player three was assigned a deviation multiplier of three, player four was assigned a deviation multiplier of one, player five was assigned a deviation multiplier of two and player six is assigned a deviation multiplier of two. Once a deviation multiplier has been assigned to each player, an initial hand rank was randomly selected. In this case, a hand ranking of 72 (full house 9 high) was selected.

[0021] Next the initial single hand rank and the average deviation for each player are used to select the hand that is dealt to each of the player. Figure 5b illustrates the hand rank selected for each of the six players. Player one has a

deviation multiplier of two, so player one's hand rank is selected as within the range of ± 20 of the initial hand ranking, or 52 to 92 (straight 10 high to straight fl 6 high). Using the formula discussed above, a hand ranking of 66 (full house 3 high) is selected for player one. Player two has a deviation multiplier of one, so player two's hand rank is selected as within the range of ± 10 of the hand ranking, or 62 to 82 (flush queen high to 4 of a kind 6 high). Using the formula discussed above, a hand ranking of 78 (4 of a kind 2 high) is selected for player two. Player three has a deviation multiplier of three, so player three's hand rank is selected as within the range of ± 30 of the hand ranking, or 42 to 100 (3 of a kind 10 high to straight flush ace high). Using the formula discussed above, a hand ranking of 98 (straight flush queen high) is selected for player three. Player four has a deviation multiplier of one, so player four's hand rank is selected as within the range of ± 10 of the hand ranking, or 62 to 82 (flush queen high to 4 of a kind 6 high). Using the formula discussed above, a hand ranking of 62 (flush queen high) is selected for player four. Player five has a deviation multiplier of two, so player four's hand rank is selected as within the range of 20 of the hand ranking, or 52 to 92 (straight 10 high to straight flush 6 high). Using the formula discussed above, a hand ranking of 77 (full house ace high) is selected for player five. Player six has a deviation multiplier of toe, so player four's hand rank is selected as within the range of 20 of the hand ranking, or 52 to 92 (straight 10 high to straight flush 6 high). Using the formula discussed above, a hand ranking of 60 (flush 10 high) is selected for player six.

[0022] Therefore, as shown in Figure 5b, player one's hand rank is 66 (full house 3 high), player two's hand rank is 78 (4 of a kind 2 high), player three's hand rank is 98 (straight flush queen high), player four's hand rank is 62 (flush queen high), player five's hand rank is 77 (full house ace high) and player six's hand rank is 60 (flush 10 high). As a result of this method, each of the six players has the possibility of having a hand rank that is close to the other players. None of the players know what the hand rank is of each of the other players, but knows that it is more likely to be a comparable hand rank than without a biased deal. Thus, a more exciting game has been created. Once all the cards have been turned over, player

three would win this game assuming all players in the game do not fold. However, those skilled in the art of poker know the hand rankings are close, much closer than one would expect to see with a standard method of dealing. All the players in the game may be dealt their cards from a single deck of cards or each player may have his own, separate deck of cards. If separate decks of cards are used and two or more players end up with the same hand, the winner is determined by the suit of the cards. Prior to the beginning of the games, rules are established as to the rankings of the suits, such as hearts takes precedence of spades which takes precedence over diamonds which takes precedence over clubs. For example, if two players have the same straight flush with the exception of different suits, the highest ranking suit would win. If the first player had a straight flush in the suit hearts and the second player had a straight flush in the diamonds, the first player would win based upon the pre-established rules that hearts are ranked higher than diamonds.

[0023] Although an exemplary embodiment of the invention has been described above by way of example only, it will be understood by those skilled in the field that modifications may be made to the disclosed embodiment without departing from the scope of the invention, which is defined by the appended claims.

WE CLAIM: